



**Table 1.** Demographic characteristics and laboratory findings of patients with and without ED

Variables	Patients without ED (n=90)	Patients with ED (n=110)	P
Age (years)	53.2±9.4	58.5±8.2	<0.001
Diabetes Mellitus n (%)	8(8.8)	21 (19.1)	0.05
Smoking n (%)	25(27.8)	42(38.2)	0.06
Body Mass Index	29.0±3.3	29.4±4.3	0.45
Systolic Blood Pressure (mm/Hg)	145.5±17.4	145.7±22.2	0.94
Diastolic Blood Pressure (mm/Hg)	89.8±12.5	87.7±12.4	0.46
Fasting Blood Glucose (mg/dL)	99.3±20.4	112.4±37.8	0.003
Urea (mg/dL)	28.1±11.7	26.7±12.7	0.46
Creatinine (mg/dL)	0.9±0.1	1.0±0.2	0.001
Sodium (mmol/L)	139.6±2.6	138.2±14.0	0.41
Potassium (mmol/L)	4.3±0.4	4.7±3.5	0.33
Uric acid (mg/dL)	5.44±1.32	6.20±1.6	0.01
Glomerular Filtration Rate (ml/minutes)	117.3±21.3	103.1±25.7	<0.001
Diuretics	38 (42.2)	34 (31.0)	0.74
Beta Blockers n (%)	16 (17.8)	34 (30.9)	0.04

## General

Sunday, October 27, 2013, 08:30 AM–09:45 AM  
Hall: SARAJEVO

Abstract nos: 38-41

### OP-038

#### Evaluation of Cardiac Biomarkers and Right Ventricular Dysfunction for Risk Stratification in Patients with Acute Pulmonary Embolism

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**Objectives:** Right ventricular (RV) dysfunction with myocardial damage may lead to fatal complications in patients with acute pulmonary embolism (PE). Cytoplasmic heart-type fatty acid binding protein (H-FABP) and N-terminal fragment of its pro-hormone (NT-proBNP) are sensitive and specific biomarkers of myocardial damage. We evaluated RV dysfunction and cardiac biomarkers for myocardial damage and short-term risk stratification in patients with acute PE.

**Methods:** We analyzed 41 patients (24 female, 17 male) with confirmed acute PE. Three groups (massive, submassive and non-massive) of patients were defined, based on systemic systolic blood pressure measured on admission and the RV dysfunction by transthoracic echocardiography (TTE). Also, systolic (s) and mean (m) pulmonary artery pressures (PAP) were recorded by TTE, and plasma concentrations of cardiac troponin T (cTnT), myoglobin (Mb), NT-proBNP, and H-FABP were analyzed.

**Results:** Twelve (29,3%) patients died (3 PE related deaths) and 17 (41,5%) experienced complicated clinical course- in 6 month follow-up- the combined end-point including at least one of the following: death, chronic PE, pulmonary hypertension and recurrent PE. Hazard ratio analysis demonstrated that PAPs, PAPm, plasma H-FABP, NT-proBNP, cTnT and Mb concentrations predicted fatal outcome. When only PE-related deaths were considered, PAPs, plasma H-FABP and NT-proBNP concentrations indicated fatal outcome. Multivariate hazard ratio analysis revealed H-FABP, NT-proBNP and PAPs as the only 6-month mortality predictor. (HR 1.02 CI 95% 1.01–1.05, 1.01 CI 95% 1.01–1.04 and 1.02 CI 95% 1.02–1.05 respectively).

**Conclusions:** H-FABP, NT-proBNP and PAPs measured on admission are useful for short-term risk stratification and in the prediction of 6-month PE-related mortality in patients with acute PE.

### OP-039

#### P-wave and QT Dispersions for Predicting Early Death in Patients with Pulmonary Embolism

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**Background:** Despite advanced therapeutic options, acute pulmonary embolism (PE) is still related to high mortality and morbidity rates. Determination of the high risk patients requiring more aggressive therapy and close monitoring remains an important issue. Acute pulmonary embolism increases the pressures of the right heart chambers and may cause various reflections that can be detected on surface electrocardiography (ECG). We aimed to demonstrate relations of QT and P wave dispersions with early death in the course of acute pulmonary embolism.

**Methods:** The archive data of 54 patients who had been hospitalized in our hospital with the diagnosis of PE (whom had final diagnosis after the exact demonstration of thrombus in pulmonary arteries via computed tomography) between January 2012 and April 2013 was retrospectively reviewed. 33 patients who were in sinus rhythm and whose data were suitable for QT interval and P wave analyses were included to the study. ECGs obtained within the first 12 hours of hospital admission were included in the study. Patients with atrial fibrillation during admission or excessive noises in ECG were excluded from the study. Retrospective analyses of corrected QT interval dispersions and P wave dispersions were performed for each patients. Three consecutive beats were used for the analyses where at least 10 leads were analyzable in ECGs.

**Results:** Among the study population, 7 patients (%21,2) died and 26 patients (%78,8) lived after the diagnosis of PE. P wave dispersion values of deaths were significantly higher than those who survived (73 (69,5-82,5) versus 51 (39,6-57,6) respectively, p=0,000). Moreover, QTcd values of deaths were also significantly higher than the survivors (119 (103-120) versus 76 (66,5-88,5) respectively, p=0,000). There was not any significant difference between the survivors and deaths by means of age, gender, smoking habit, D-dimer levels and accompanying diseases like diabetes, hypertension, malignity, chronic obstructive pulmonary disease (COPD) and deep venous thrombosis (p>0,05). Troponin I serum levels were significantly higher in deaths (15,9±13,8 versus 2,1±10,2, p=0,01) and hemoglobin levels were significantly lower (10,6 (9-11,3) versus 12 (11-13,3), p=0,034).

**Conclusions:** To the best of our knowledge this study, for the first time demonstrated close relation of Pd with early death in the course of acute PE. In order, to detect those who were under potential high risk and who need more aggressive treatment, ECG parameters like Pd and QTcd may be used as useful markers.